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Keith Ballinger

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EXAMINER

PATEL, CHANDRAHAS B

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/645,279	<b>Applicant(s)</b> BALLINGER ET AL.	
	<b>Examiner</b> Chandahas Patel	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 28 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27, 30, 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment & Arguments***

Applicant's arguments filed 1/11/2008 have been fully considered but they are not persuasive.

Applicant argues that Jackson does not teach removing router from the router list. However, examiner disagrees. Jackson teaches removing the head entry from the router list once the call is received at switch and keeps removing the head entry until the call is routed to a proper destination. Head entry is the destination router as described in Col. 5, lines 17-28.

Applicant argues that Tsuchiya and Krishnamurthy does not teach referencing content logic stored at the sending computer system, wherein the content logic describes routing rules based on the discrete content portion of the message. However, this feature has been amended in currently submitted amendments which are addressed below.

### ***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claim 1, 3, 8-11, 16, 18, 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya (USPN 5,353,283) in view of Jackson et al. (USPN 6,826,275).

**Regarding claim 1**, Tsuchiya teaches in a router, a method of routing a message from a sending computer system to a receiving computer system such that a routing path for the message can be changed before the message reaches the receiving computer system [**Col. 6, lines 31-34**], comprising the following: an act of receiving a message that originated at the sending computer system and that is to be delivered to the receiving computer system [**Col. 6, lines 42-**

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**43, node x transmits to next node therefore “next node” is receiving the message]** , the message having at least three discrete portions comprising a router list portion that identifies one or more routers [**Fig. 8, 410, 420, 430, 440, 450, 460, 470, 480**], an ultimate destination identifier portion [**Fig. 8, 485, this field points to the right field indicating the destination**], and a message content portion which is distinguished from and independent from the router list portion [**Fig. 6, PAYLOAD is different from router list portion**]; an act of accessing routing rules that specify how the message should be routed to the receiving computer system [**Col. 6, lines 43-47**]; an act of comparing at least a portion of one or more of the three discrete portions of the message to the routing rules to determine whether the router list should be reconfigured [**Col. 7, lines 16-60, depending on header its determined if packet is in the backbone of the network it belongs and pointer to routing table is changed which will change the sequence of nodes accessed which will add or delete routers from the list, Col. 8, lines 10-15 state adding a router**]; and an act of sending the message to a next router in the router list [**Col. 7, lines 62-68 – Col. 8, lines 2-5**], wherein the next router identifies that it is an appropriate recipient for the message [**Col. 8, lines 58-63, extra information is used to verify that packet is at right node**].

However, Tsuchiya does not teach the router adds or deletes one or more router in the router list portion as appropriate; an act of removing the router from the router list portion prior to sending the message so that a subsequent router becomes a top most router in the router list portion.

Jackson teaches the router adds or deletes one or more router in the router list portion as appropriate; an act of removing the router from the router list portion prior to sending the

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message so that a subsequent router becomes a top most router in the router list portion [**Col. 5, lines 29-40**].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to remove the top most entry from the router list portion prior to sending the message so that could call be routed to its final target by checking its head entry [**Col. 5, lines 29-40**].

**Regarding claims 3 and 18**, Tsuchiya teaches the routing rules are present in one or more of the router [**Fig. 14, node x's routing table**], the next router [**Fig. 15, node b's routing table**], the sending computer system [**node x is sending computer system whose routing table is shown in Fig. 14, Col. 6, lines 9-10**], and the message [**Fig. 8, 410, 420, 430, 440, 450, 460, 470, 480 describe a sequence of nodes that should be accessed**].

**Regarding claims 8 and 23**, Tsuchiya teaches an act of providing a router preference in the router list portion prior to relaying the message to the router [**Col. 8, lines 30-35**].

**Regarding claims 9 and 24**, Tsuchiya teaches the router is a user-created router, the routing rules comprising rules based on the content portion of the message, the user-created router determining whether to add or a delete a next router from the router list based on a comparison of the message content portion of the message and the routing rules [**Col. 10, lines 3-21, depending on the value of RC field the router will be changed which will add or delete routers as appropriate for the route, RC filed is part of the message content**].

**Regarding claims 10 and 25**, Tsuchiya teaches reconfiguring the router list portion contained within the message based at least in part on a comparison of the routing rules and one or more of the three discrete portions of the message including a router identified in the routing list, the geographic origin of the message [**Col. 9, lines 18-58, each node has to compare the**

**packet to the forwarding table to index into a forwarding table]**, and the message content portion **[Col. 10, lines 3-21]**.

**Regarding claims 11 and 26**, Tsuchiya teaches comparing at least a portion of one or more of the three discrete portions of the message to the routing rules comprise an act of comparing the message content portion to the routing rules, wherein the routing rules comprise rules based on the content portion of the message **[Col. 7, lines 16-30, routing rules are based on which level of internet is the packet going to pass through which is based on content of the packet]**.

**Regarding claim 16**, Tsuchiya teaches a computer program product for use in a router, the computer program product for implementing a method for routing a message from a sending computer system to a receiving computer system such that a routing path for the message can be changed before the message reaches the receiving computer system **[Col. 6, lines 31-34]**, the computer program product comprising one or more computer-readable media having stored thereon computer executable instructions that, when executed by a processor, cause the router to perform the following **[Fig. 2, 11, Col. 1, lines 51-54]**: receive a message that originated at the sending computer system and that is to be delivered to the receiving computer system **[Col. 6, lines 42-43, node x transmits to next node therefore “next node” is receiving the message]** , the message having at least three discrete portions comprising a router list portion that identifies one or more routers **[Fig. 8, 410, 420, 430, 440, 450, 460, 470, 480]**, an ultimate destination identifier portion **[Fig. 8, 485, this field points to the right field indicating the destination]**, and a message content portion which is distinguished from and independent from the router list portion **[Fig. 6, PAYLOAD is different from router list portion]**; access routing rules that

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specify how the message should be routed to the receiving computer system [**Col. 6, lines 43-47**]; compare at least a portion of one or more of the three discrete portions of the message to the routing rules to determine whether the router list should be reconfigured, [**Col. 7, lines 16-60, depending on header its determined if packet is in the backbone of the network it belongs and pointer to routing table is changed which will change the sequence of nodes accessed which will add or delete routers from the list, Col. 8, lines 10-15 state adding a router**]; send the message to a next router in the router list portion [**Col. 7, lines 62-68 – Col. 8, lines 2-5**], wherein the next router identifies that it is an appropriate recipient for the message [**Col. 8, lines 58-63, extra information is used to verify that packet is at right node**].

However, Tsuchiya does not teach the router adds or deletes one or more router in the router list as appropriate; remove the router from the router list portion prior to sending the message so that a subsequent router becomes a top most router in the router list portion.

Jackson teaches the router adds or deletes one or more router in the router list portion as appropriate; remove the router from the router list portion prior to sending the message so that a subsequent router becomes a top most router in the router list portion [**Col. 5, lines 29-40**].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to remove the top most entry from the router list portion prior to sending the message so that could call be routed to its final target by checking its head entry [**Col. 5, lines 29-40**].

3. Claims 2, 6, 7, 17, 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya (USPN 5,353,283) in view of Jackson et al. (USPN 6,826,275) as applied to claims 1, 16 above, and further in view of Burbeck et al. (USPN 7,181,536).

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**Regarding claims 2 and 17**, the references teach a method and a computer program product as discussed in rejection of claim 1 and 16.

However, the references do not teach receiving a Simple Object Access Protocol (SOAP) message.

Burbeck teaches receiving a SOAP message [**Col. 9, lines 4-8**].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to receive a SOAP message so that messaging can be provided [**Col. 8, lines 20-21**].

**Regarding claims 6 and 21**, Tsuchiya further teaches an act of detecting that the ultimate destination is an appropriate recipient of the message upon receiving the message at the ultimate destination [**Col. 2, lines 40-45**].

**Regarding claims 7 and 22**, Tsuchiya further teaches an act of identifying the one or more routers in the router list portion sequentially beginning with a top most router [**Col. 5, lines 28-32**]; an act of identifying that the router is the top most router in the router list portion [**Col. 6, lines 53-58**]; and an act of confirming at the ultimate destination that the ultimate destination is the top most router in the router list portion [**Col. 7, lines 46-61**].

4. Claims 4, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya (USPN 5,353,283) in view of Jackson et al. (USPN 6,826,275) as applied to claims 1, 16 above, and further in view Waclawsky et al. (USPN 5,493,689).

**Regarding claims 4 and 19**, the references teach a method as discussed and a computer program product in rejection of claim 1 and 16.



However, the references do not teach reconfiguring the router list portion based on a local file stored in the next router.

Waclawsky teaches reconfiguring the router list portion based on a local file stored in the next router [Col. 7, lines 17-24, **Routing Expert 106 is a file stored in memory 100 as shown in Fig 1A**].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to reconfigure the router list based on local file stored in the router so that router list can be changed depending on type of packets [Col. 7, lines 5-14].

5. Claims 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya (USPN 5,353,283) in view of Waclawsky et al. (USPN 5,493,689) and Jackson et al. (USPN 6,826,275).

**Regarding claim 12**, Tsuchiya teaches in a router, a method of routing a message from a sending computer system to a receiving computer system such that a routing path for the message can be changed before the message reaches the receiving computer system [Col. 6, lines 31-34], comprising the following: an act of receiving a message that originated at the sending computer system and that is to be delivered to the receiving computer system [Col. 6, lines 42-43, **node x transmits to next node therefore “next node” is receiving the message**] , the message having at least three discrete portions comprising a router list portion that identifies one or more routers [Fig. 8, 410, 420, 430, 440, 450, 460, 470, 480], an ultimate destination identifier portion [Fig. 8, 485, **this field points to the right field indicating the destination**], and a message content portion which is distinguished from and independent from the router list portion

**[Fig. 6, PAYLOAD is different from router list portion]**; a step for adjusting a routing path for the message based in part on the ultimate destination portion indicated in the message **[Col. 6, lines 9-20]**, the routing list portion of the message **[Col. 6, lines 20-25]**; and an act of sending the message to a next router in the router list portion **[Col. 7, lines 62-68 – Col. 8, lines 1-5]**, wherein the next router identifies that it is an appropriate recipient for the message **[Col. 8, lines 58-63, extra information is used to verify that packet is at right node]**.

However, Tsuchiya does not teach adjusting a routing path based on a referral cache and an act of removing the router from the router list portion prior to sending the message so that a subsequent router becomes a top most router in the router list portion.

Waclawsky teaches adjusting a routing path based on a referral cache **[Col. 7, lines 17-24, Routing expert is stored in memory as shown in Fig. 1B, 106]**. Jackson teaches an act of removing the router from the router list portion prior to sending the message so that a subsequent router becomes a top most router in the router list portion **[Col. 5, lines 29-40]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to remove the top most entry from the router list portion prior to sending the message so that could call be routed to its final target by checking its head entry **[Col. 5, lines 29-40]** and adjust a routing path based on a referral cache so that the router list can be changed depending on type of packets **[Col. 7, lines 5-14]**.

**Regarding claim 13**, Tsuchiya further teaches a corresponding act of accessing routing rules that specify how the message should be routed to the receiving computer system **[Col. 6, lines 43-47]**; and a corresponding act of comparing at least a portion of one or more of the three discrete portions of the message to the routing rules to determine whether the router list portion

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should be reconfigured, wherein the router adds or deletes one or more routers in the router list portion as appropriate [Col. 7, lines 16-60, depending on header its determined if packet is in the backbone of the network it belongs and pointer to routing table is changed which will change the sequence of nodes accessed which will add or delete routers from the list, Col. 8, lines 10-15 state adding a router].

6. Claims 14, 15, 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya (USPN 5,353,283) in view of Krishnamurthy et al. (USPN 6,910,024).

**Regarding claim 14**, Tsuchiya teaches in a sending computer system, a method of routing a message to a receiving computer system such that a routing path for the message can be changed before the message reaches the receiving computer system [Col. 6, lines 31-34], comprising the following: an act of identifying the receiving computer system [Fig. 8, 480], and one or more preferred routers by which the message is intended to be relayed to the receiving computer system [Col. 6, lines 14-20]; an act of creating the message, the message including at least three discrete portions comprising an identifier portion representing the receiving computer system [Fig. 8, 480], a message content portion [Fig. 6, PAYLOAD], and a message router list portion [Fig. 8, 410, 420, 430, 440, 450, 460, 470, 480], the message router list portion including the one or more preferred routers [Col. 6, lines 14-20]; an act of referencing a cached router list stored at the sending computer system [Col. 6, lines 42-47]; an act of referencing content logic stored at the sending computer system, wherein the content logic describes routing rules based on the discrete content portion of the message [Col. 10, lines 3-21]; and an act of sending the message to a first router included in the modified router list portion [Col. 6, lines 53-58].

However, Tsuchiya does not teach an act of modifying the message router list portion, the modification being based on router data contained within the cached router list, wherein a router from the cached router list portion is added to the message router list or a router is deleted from the message router list portion.

Krishnamurthy et al. teaches an act of modifying the message router list portion, the modification being based on router data contained within the cached router list and the content logic, wherein a router from the cached router list portion is added to the message router list portion or a router is deleted from the message router list portion [**Col. 11, lines 42-65**].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the message router list based on router list data in the router so that hop-to-hop signaling can be accomplished [**Col. 6, lines 44-50**].

**Regarding claim 15**, Tsuchiya further teaches an act of modifying the message router list portion based on routing rules that indicate one or more preferred routers through which the message should be relayed before reaching the receiving computer [**Col. 8, lines 30-35**].

**Regarding claim 27**, Tsuchiya teaches a computer program product for use in a sending computer system, the computer program product for a method for routing a message from a sending computer system to a receiving computer system such that a routing path for the message can be changed before the message reaches the receiving computer system [**Col. 6, lines 31-34**], the computer program product comprising one or more computer-readable media having stored thereon computer executable instructions that, when executed by a processor, cause the sending computer system to perform the following [**Fig. 2, 11, Col. 1, lines 51-54**]: identify the receiving computer system [**Fig. 8, 480**], and one or more preferred routers by which the

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message is intended to be relayed to the receiving computer system [**Col. 6, lines 14-20**]; create the message, the message including an identifier portion representing the receiving computer system [**Fig. 8, 480**], a message content portion [**Fig. 6, PAYLOAD**], and a message router list portion [**Fig. 8, 410, 420, 430, 440, 450, 460, 470, 480**], the message router list portion including the one or more preferred routers [**Col. 6, lines 14-20**]; reference a cached router list stored at the sending computer system [**Col. 6, lines 42-47**]; reference content logic stored at the sending computer system, wherein the content logic describes routing rules based on the discrete content portion of the message [**Col. 10, lines 3-21**]; and send the message to a first router included in the modified router list portion [**Col. 6, lines 53-58**].

However, Tsuchiya does not teach modifying the message router list portion based on router data contained within the cached router list, wherein a router from the cached router list portion is added to the message router list portion or a router is deleted from the message router list portion.

Krishnamurthy et al. teaches modifying the message router list portion based on router data contained within the cached router list and the content logic, wherein a router from the cached router list portion is added to the message router list portion or a router is deleted from the message router list portion [**Col. 11, lines 42-65**].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the message router list based on router list data in the router so that hop-to-hop signaling can be accomplished [**Col. 6, lines 44-50**].

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7. Claims 5, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya (USPN 5,353,283) in view of Jackson et al. (USPN 6,826,275) and Burbeck et al. (USPN 7,181,536) as applied to claims 2 and 17 above, and further in view of Owen et al. (USPN 6,950,438, Herein as Owen).

**Regarding claims 5 and 20**, the references teach a method and a computer program product as discussed in rejection of claim 2 and 17.

However, the references do not teach the next router identifies that it is an appropriate target of the sent message based on one or more of the next router's position in the router list portion, and a router designation contained in the message.

Owen teaches the next router identifies that it is an appropriate target of the sent message based on one or more of the next router's position in the router list portion, and a router designation contained in the message [**Col. 22, lines 43-56**].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have next router identify that it is an appropriate recipient of the message based on router's position in the router list so that if the packet is not at its target node it can be forwarded to the appropriate destination node [**Col. 22, lines 49-53**].

8. Claims 30, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya (USPN 5,353,283) in view of Krishnamurthy et al. (USPN 6,910,024) as applied to claims 14 and 27 above, and further in view of Burbeck et al. (USPN 7,181,536).

**Regarding claims 30 and 31**, the references teach a method and computer program product as discussed in rejection of claims 14 and 27 respectively.

However, the references do not teach the message is created in a markup language and the receiving computer system identifier portion is contained within metadata of the message.

Burbeck teaches the message is created in a markup language and the receiving computer system identifier portion is contained within metadata of the message [**Fig. 4, Col. 11, lines 49-51**].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the message created in a markup language so that application-to-application message can be done [**Col. 7, lines 4-7**].

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chandrahas Patel whose telephone number is (571)270-1211. The examiner can normally be reached on Monday through Thursday 7:30 to 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/  
Supervisory Patent Examiner, Art Unit  
2616

/Chandrabhas Patel/  
Examiner, Art Unit 2616